ABSTRACT

A catheter having a shaft with at least two variable layers, in which the relative proportions of the two layers changes along at least a part of the multilayered shaft section. The catheter shaft includes a cotapered transition section having a first layer tapering to a decreased thickness, and a second layer inversely tapering to an increased thickness. In one embodiment, the shaft has one or more tapered outer and/or inner surfaces in addition to the cotapered transition. The tapered outer or inner surface of the shaft is typically longitudinally displaced from the cotapered transition section. In a presently preferred embodiment, the shaft having a cotapered transition section is coextruded. Another aspect of the invention includes a method of making a shaft having a cotapered transition section. The shaft of the invention provides improved transitions between shaft sections, to thereby change characteristics such as the shaft stiffness along the length of the catheter.

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